

## ABSTRACT OF THE DISCLOSURE

A method and apparatus encodes data on a clock pulse signal by phase modulating a clock pulse signal by introducing a sinusoidal jitter modulation to the clock pulse signal to selectively introduce intentional jitter at clock pulse transitions, wherein the sinusoidal jitter has selectable jitter frequencies each having a given amplitude. This is followed by a data signal which may include additional data that has an encoded format of binary ones and zeros, such that the appearance of the binary one in the data signal causes the phase modulation of the clock pulse signal by the selection of one of the jitter frequencies of a given amplitude. The appearance of a binary zero causes the selection of another frequency of a given amplitude to thereby modulate the clock pulse signal resulting in a phase modulated clock pulse signal that includes the encoded data in the data or additional signal.

**SPECIFICATION**

To All Whom It May Concern:

Be it known that I, **Ossi Ilari Grohn**, a citizen of Finland residing at 106 Spindle  
Creek Ct., Apex, North Carolina 27502, has invented a certain new and useful **SYSTEM**  
5 **AND METHOD TO ENHANCE THE CAPACITY OF A COMMUNICATION LINK**,  
of which the following is a specification.